

ABSTRACT THE DISCLOSURE

A circuit board assembly which includes an electrically insulating layer, a conductive printed wiring layer formed on the surface of the electrically insulating layer and includes a plurality of conductive paths, a conductive trace on the electrically insulating layer and apparatus for dissipating a transient in addition to a surface mount resistor fixed in relation to the trace. In some forms of the invention the surface mount resistor has opposed generally planar lips. The trace may also be generally planar. In some cases the lower lips and the trace are generally parallel. The generally planar lips of the surface mount resistor may be closer to the trace than the thickness of the surface mount resistor. A single geometric plane may extend through substantially all of the lips and all of the trace. In some cases the lower surface of the lips and the lower surface of the trace are substantially coplanar.

5      In some cases the upper surface of the lower lip and the upper surface of the trace are substantially coplanar. In other cases the lower surface of the lower lip and the lower surface of the trace are substantially coplanar and in addition the upper surface of the lip and the upper surface of the trace are substantially coplanar.

10     In some cases the upper surface of the lower lip and the upper surface of the trace are substantially coplanar. In other cases the lower surface of the lower lip and the lower surface of the trace are substantially coplanar and in addition the upper surface of the lip and the upper surface of the trace are substantially coplanar.

15     In some cases the upper surface of the lower lip and the upper surface of the trace are substantially coplanar. In other cases the lower surface of the lower lip and the lower surface of the trace are substantially coplanar and in addition the upper surface of the lip and the upper surface of the trace are substantially coplanar.

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